



NVLAP LAB CODE 201011-0

Report No.: STD160203NB-H

LM-79-08 Test Report

For

CEA GROUP INTERNATIONAL CO.,LTD

(Brand Name:CEA EAEC)

Sanjiali Industrial Zone Zhucheng Road Panshi North baixiang Yueqing Zhejiang China

Fuel Pump Canopy Luminaires

Model name(s): CNL5-100

Representative (Tested) Model: CNL5-100(2700K)
CNL5-100(5700K)

Model Difference: All construction and rating are the same, except CCT.

Test & Report By:

Johnson Sun

Engineer: Johnson Sun

Date: Jun.01,2016

Review By:

Tommy Liang

Manager: Tommy Liang

Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Laboratory: Standard-Tech Co. Ltd Testing Center

NVLAP CODE: 201011-0

Report Format Number STD/QR4909-H/2

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Tel: 8620-3229 0320

Fax: 8620-32290422

<http://www.standard-tech.com>



U.S. Department of Energy

Lighting Facts™ Uniform LM-79 Reporting Template

Laboratory Information:

Name of Test Laboratory	Standard-Tech Co., Ltd.
Date of Test Report	Jun.01,2016
Test Report No.	STD160203NB-H
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	CEA GROUP INTERNATIONAL CO.,LTD	
Brand Name	CEA EAEC	
Model Number	CNL5-100(2700K)	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Fuel Pump Canopy Luminaires	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	

Integrating Sphere

Goniophotometer

Electrical Measurements:

Output

Output

Input Wattage	--	95.03	W
Input Current	--	0.7987	A
Input Voltage (ac)	--	120.0	V
Power Factor	--	0.9915	
Off-State Power	--	0	W

Photometric Characteristics

Total Initial Lumen Output	--	10931	lm
Initial Lumen Efficacy	--	115.03	lm/w
Correlated color temperature / CCT	2718	--	K
Color rendering index / CRI	80.0	--	
R9 Value	0	--	
Duv	0.0008	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)		4047	cd
Beam angle (if applicable)		104.8	°
Zonal lumens in the 0 °-60 ° zone		80.5	%
Zonal lumens in the 60 °-90 ° zone	---	18.8	%
Zonal lumens in the 90 °-120 ° zone		0.4	%
Zonal lumens in the 120 °-180 ° zone		0.3	%

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Test Report No.	STD160203NB-H
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	CEA GROUP INTERNATIONAL CO.,LTD	
Brand Name	CEA EAEC	
Model Number	CNL5-100(5700K)	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Fuel Pump Canopy Luminaires	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	

Electrical Measurements:	Integrating Sphere	Goniophotometer	
	Output	Output	
Input Wattage	95.78	--	W
Input Current	0.8053	--	A
Input Voltage (ac)	120.0	--	V
Power Factor	0.9912	--	
Off-State Power	0	--	W

Photometric Characteristics

Total Initial Lumen Output	11204	--	lm
Initial Lumen Efficacy	116.98	--	lm/w
Correlated color temperature / CCT	5315	--	K
Color rendering index / CRI	85.6	--	
R9 Value	22	--	
Duv	-0.0029	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)			cd
Beam angle (if applicable)			°
Zonal lumens in the 0°-60° zone	-----		%
Zonal lumens in the 60°-90° zone			%
Zonal lumens in the 90°-120° zone			%
Zonal lumens in the 120°-180° zone			%

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Date of Receipt	:May.25,2016
Date of Test	: May.27,2016
Test item	: Total Luminous Flux, Luminous Distribution Intensity, Luminous Efficacy, Correlated Color Temperature, Color Rendering Index, Chromaticity Coordinate, Electrical parameters
Reference Standard	IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources CIE 15-2004 Technical Report Colorimetry IESNA LM-16-93 Practical Guide to Colorimetry of Light Source IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

Test Methods

1. Photometric and Electrical measurements – Light Distribution Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1 ° vertical intervals and 22.5 ° horizontal intervals.

2. Photometric and Electrical Measurements – Integrating Sphere Method:

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at least 5 nm intervals over the range of 380 to 780 nm.

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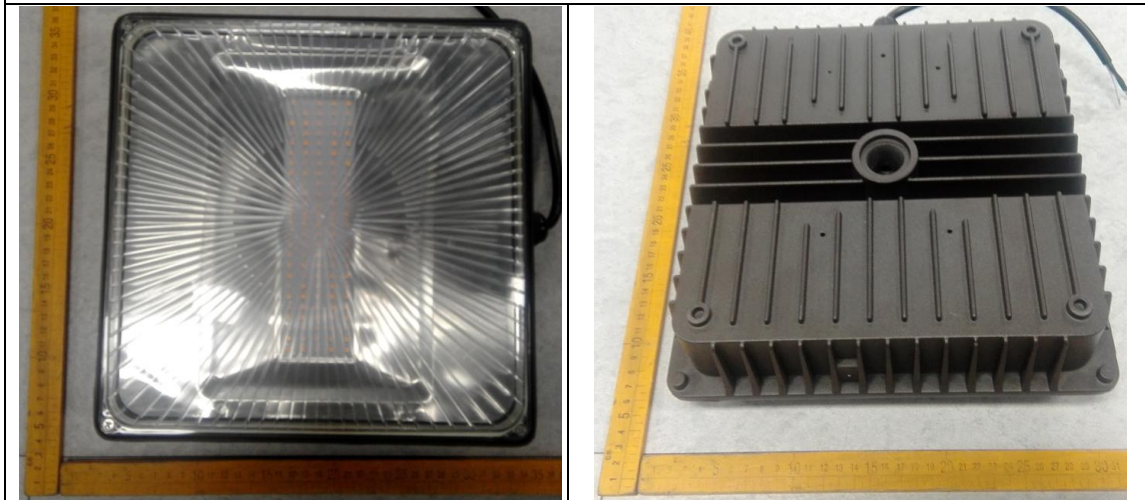
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1. Product Information:

Brand Name	CEA EAEC
Model Number	CNL5-100
Luminaire Type	Fuel Pump Canopy Luminaires
Rated Voltage / Frequency	100 ~ 277 Vac, 50/60Hz
Nominal Power	100W
Rated Initial Lamp Lumen	--
Declared CCT	2700K,3000K,3500K,4000K,4500K,5000K,5700K
LED Manufacturer	Guangdong LcLed Lighting Co.,LTD.
LED Model	SMD LED
Sample Receipt Date	May.25,2016
Sample Number	STD160203NB-H1(2700K),H2(5700K)

Photo



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2.1 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
--	-----------------------

Test date	2016-05-27	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	CNL5-100(2700K)		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
STD160203	120.0	60	0.7987	95.03	0.9915	10.91
NB-H1	277.0	60	0.3741	93.55	0.9028	13.22

Color Data:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	80.0
R9	0
CCT (K)	2718
Chromaticity (x, y)	x=0.4597 y=0.4127
Chromaticity (u', v')	u'=0.2615 v'=0.5281
Duv	0.0008

Special Color Rendering Indices			
R1	77	R9	0
R2	91	R10	78
R3	95	R11	75
R4	77	R12	70
R5	78	R13	80
R6	89	R14	98
R7	81	R15	69
R8	52	--	--

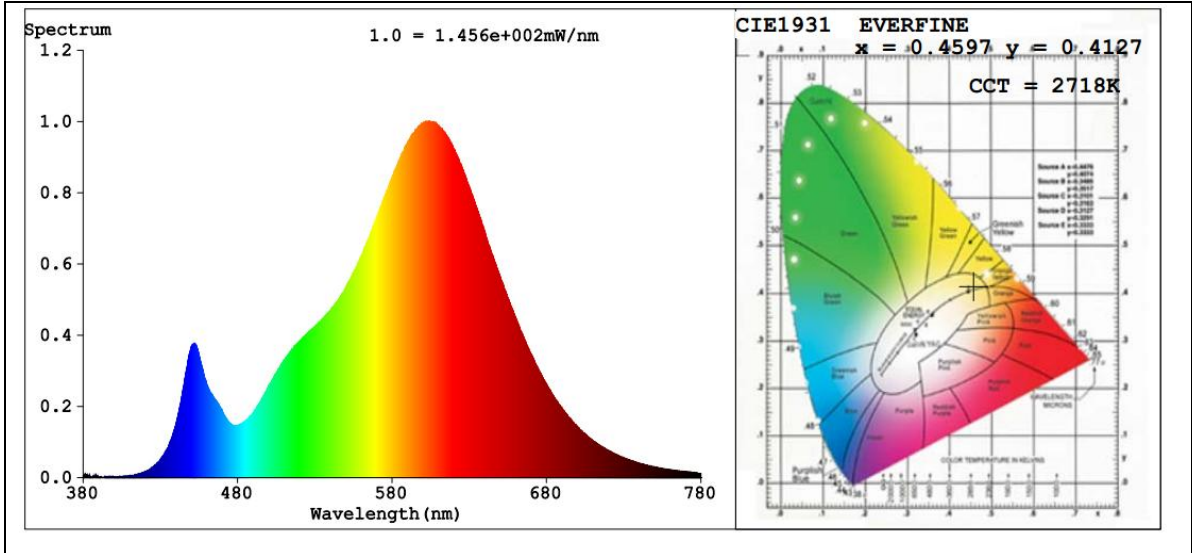
Goniophotometer Method :

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	10931
Luminous Efficacy (lm/W)	115.03
Beam Angle °	104.8
Center Beam Candle Power (cd)	4047

Goniophotometer Method for 277V:

Parameter	Result
Test Voltage (V)	277.0
Frequency (Hz)	60
Total Luminous (lm)	10759
Luminous Efficacy (lm/W)	115.01

Spectral Power Distribution & Chromaticity Diagram



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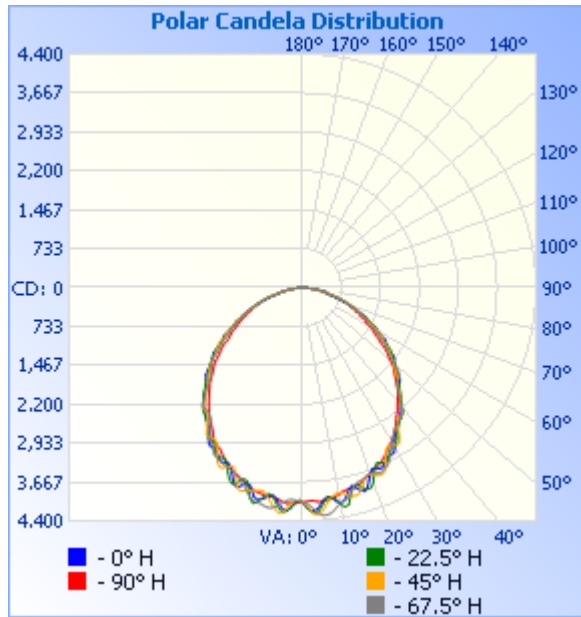
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Zonal Lumen Tabulation

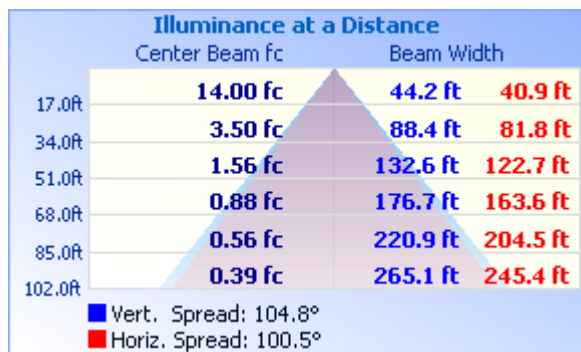
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	3,162.9	28.9%
0-40	5,123.5	46.9%
0-60	8,800.7	80.5%
60-90	2,057.7	18.8%
70-100	835.6	7.6%
90-120	40.7	0.4%
0-90	10,858.4	99.3%
90-180	72.0	0.7%
0-180	10,930.4	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	390.8	3.6%	90-100	11.0	0.1%
10-20	1,110.8	10.2%	100-110	11.3	0.1%
20-30	1,661.4	15.2%	110-120	18.3	0.2%
30-40	1,960.6	17.9%	120-130	14.6	0.1%
40-50	1,964.3	18.0%	130-140	7.5	0.1%
50-60	1,712.9	15.7%	140-150	3.9	0%
60-70	1,233.1	11.3%	150-160	2.8	0%
70-80	654.9	6.0%	160-170	1.8	0%
80-90	169.8	1.6%	170-180	0.7	0%

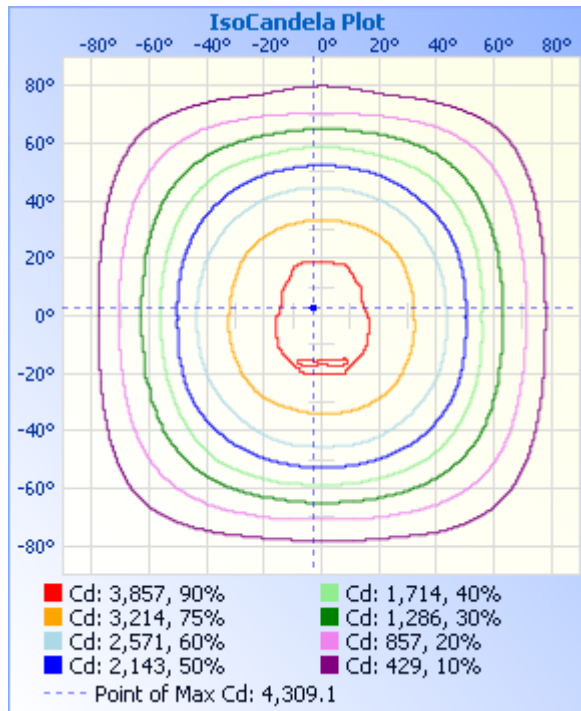
Photometric Data



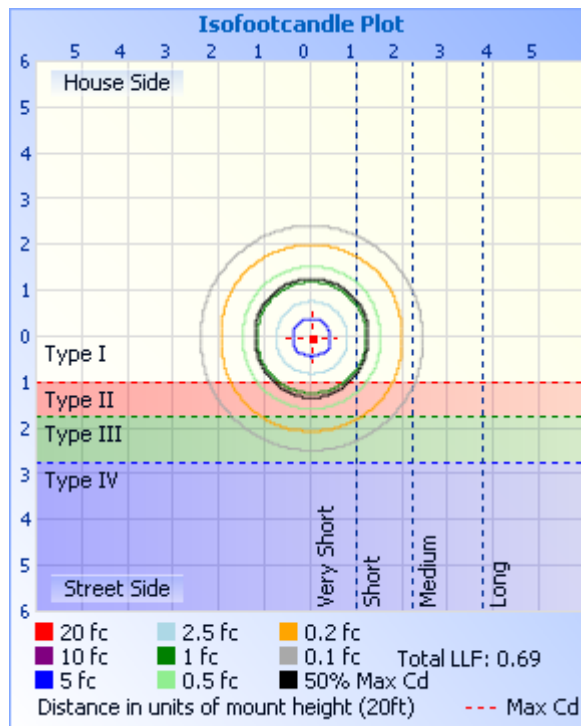
Illuminance Plots



ISOCANDELA DIAGRAM



ISOLUX DIAGRAM



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Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047	4047
1	4142	4134	4113	4066	4037	4007	3995	4011	4007	4005	4014	4028	4054	4093	4112	4139	4142
2	4201	4212	4194	4116	4019	3991	3998	4048	4059	4056	4021	4011	4066	4167	4189	4203	4201
3	4215	4262	4268	4185	4025	3979	4070	4144	4151	4132	4073	4002	4069	4231	4251	4240	4215
4	4171	4235	4289	4259	4044	4006	4182	4247	4207	4217	4171	4016	4083	4285	4264	4208	4171
5	4076	4137	4231	4309	4046	4037	4250	4259	4202	4245	4239	4058	4066	4300	4216	4126	4076
6	3996	4027	4134	4309	4034	4088	4261	4182	4126	4198	4275	4109	4029	4292	4122	4042	3996
7	3969	3967	4042	4291	4027	4126	4232	4079	4025	4092	4219	4157	4002	4272	4019	3963	3969
8	4008	3976	3982	4244	4007	4153	4149	3955	3957	3988	4128	4188	3977	4223	3922	3956	4008
9	4079	4046	3938	4179	3985	4161	4076	3891	3968	3938	4043	4196	3981	4185	3890	4024	4079
10	4117	4153	3931	4133	3956	4156	3984	3905	4015	3953	3964	4176	3974	4127	3913	4143	4117
11	4087	4211	3944	4101	3919	4148	3916	4010	4057	4045	3904	4150	3964	4065	3956	4202	4087
12	4007	4180	3981	4062	3903	4146	3879	4135	4088	4143	3902	4139	3954	4005	4010	4144	4007
13	3898	4028	4022	3990	3885	4129	3870	4178	4055	4168	3919	4124	3940	3960	4043	4004	3898
14	3847	3894	4044	3907	3882	4082	3902	4095	3948	4090	3936	4084	3921	3902	4042	3869	3847
15	3907	3840	4038	3835	3866	4002	3948	3948	3849	3925	3963	4007	3891	3815	4021	3842	3907
16	3980	3881	3982	3807	3860	3921	3994	3804	3832	3795	3985	3923	3850	3756	3979	3887	3980
17	4013	3954	3885	3794	3826	3870	4029	3773	3893	3770	4008	3853	3813	3742	3880	3942	4013
18	3964	3993	3788	3772	3793	3812	3988	3837	3947	3827	3975	3805	3779	3751	3767	3967	3964
19	3841	3981	3735	3744	3756	3760	3860	3890	3938	3908	3859	3773	3744	3770	3709	3924	3841
20	3723	3898	3741	3721	3720	3697	3722	3906	3845	3922	3711	3739	3711	3770	3718	3822	3723
21	3663	3759	3788	3741	3692	3676	3636	3836	3723	3863	3621	3700	3696	3758	3765	3718	3663
22	3667	3639	3815	3769	3665	3646	3628	3730	3631	3757	3631	3680	3672	3749	3792	3646	3667
23	3708	3585	3827	3781	3639	3622	3664	3610	3590	3642	3667	3671	3627	3736	3806	3615	3708
24	3708	3609	3794	3757	3609	3606	3677	3539	3602	3558	3723	3648	3567	3724	3769	3627	3708
25	3654	3657	3699	3735	3572	3598	3696	3533	3626	3540	3715	3628	3515	3705	3681	3637	3654
26	3586	3637	3573	3689	3532	3588	3653	3551	3591	3558	3662	3610	3474	3659	3556	3615	3586
27	3561	3567	3465	3621	3475	3577	3575	3568	3517	3564	3553	3584	3421	3616	3458	3558	3561
28	3563	3493	3397	3539	3421	3546	3467	3513	3467	3521	3444	3551	3394	3520	3383	3478	3563
29	3557	3450	3399	3441	3378	3459	3354	3402	3450	3423	3347	3485	3360	3441	3365	3428	3557

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30	3478	3464	3438	3355	3348	3397	3297	3308	3465	3353	3309	3419	3336	3370	3385	3423	3478
31	3360	3425	3460	3303	3299	3374	3300	3284	3428	3342	3304	3368	3270	3310	3423	3425	3360
32	3288	3348	3436	3247	3244	3334	3320	3281	3339	3349	3330	3283	3197	3248	3400	3385	3288
33	3243	3266	3354	3196	3190	3242	3331	3239	3249	3281	3318	3198	3137	3183	3305	3294	3243
34	3187	3205	3225	3151	3135	3151	3241	3197	3160	3212	3227	3112	3091	3113	3177	3186	3187
35	3128	3153	3109	3125	3070	3059	3151	3154	3113	3144	3137	3031	3039	3074	3105	3119	3128
36	3100	3108	3054	3100	3011	3006	3062	3079	3081	3083	3047	2974	2988	3053	3080	3098	3100
37	3062	3077	3057	3067	2958	2965	3017	3021	3046	3032	2973	2948	2928	3027	3062	3072	3062
38	2996	3049	3046	3038	2902	2927	2981	2988	3005	2998	2967	2935	2873	2996	3005	3011	2996
39	2942	3003	2971	2985	2835	2904	2942	2950	2956	2979	2954	2925	2810	2949	2922	2947	2942
40	2871	2910	2861	2885	2787	2878	2868	2906	2918	2928	2892	2896	2752	2868	2849	2900	2871
41	2789	2827	2795	2792	2732	2821	2789	2846	2863	2857	2800	2840	2690	2793	2789	2836	2789
42	2741	2767	2748	2709	2675	2748	2726	2776	2776	2795	2727	2760	2629	2710	2716	2746	2741
43	2670	2702	2672	2649	2622	2676	2662	2722	2708	2731	2669	2670	2567	2605	2649	2652	2670
44	2593	2633	2585	2574	2555	2596	2586	2651	2643	2656	2591	2583	2525	2520	2590	2601	2593
45	2560	2574	2537	2514	2492	2497	2509	2580	2576	2590	2522	2489	2451	2445	2512	2546	2560
46	2552	2510	2485	2496	2427	2423	2451	2533	2514	2533	2480	2408	2379	2412	2459	2477	2552
47	2509	2445	2434	2498	2369	2344	2408	2479	2491	2453	2431	2363	2316	2420	2411	2440	2509
48	2421	2393	2367	2460	2325	2286	2368	2413	2454	2393	2381	2334	2253	2399	2338	2388	2421
49	2329	2338	2296	2386	2259	2267	2318	2345	2368	2348	2329	2280	2210	2313	2260	2308	2329
50	2252	2280	2239	2283	2179	2239	2260	2284	2274	2281	2264	2237	2133	2231	2207	2265	2252
51	2203	2229	2192	2189	2099	2227	2194	2221	2204	2224	2212	2196	2049	2152	2139	2216	2203
52	2198	2176	2135	2095	2037	2156	2137	2163	2153	2160	2132	2122	1979	2074	2081	2165	2198
53	2140	2123	2077	2017	1969	2057	2065	2092	2119	2103	2061	2021	1919	1993	2025	2108	2140
54	2038	2063	2015	1960	1881	1977	2007	2031	2064	2038	2002	1928	1848	1921	1986	2043	2038
55	1935	2008	1964	1904	1795	1902	1951	1979	1958	1955	1945	1872	1731	1874	1921	2001	1935
56	1886	1926	1888	1834	1733	1794	1887	1928	1865	1895	1889	1808	1661	1823	1867	1919	1886
57	1877	1829	1816	1749	1641	1729	1836	1837	1785	1824	1827	1732	1614	1704	1805	1817	1877
58	1826	1753	1772	1686	1591	1656	1768	1757	1760	1747	1729	1646	1568	1654	1730	1739	1826
59	1712	1687	1708	1624	1540	1588	1710	1697	1711	1651	1671	1596	1488	1607	1691	1674	1712
60	1651	1621	1640	1562	1461	1523	1641	1598	1588	1587	1612	1560	1428	1560	1626	1604	1651
61	1591	1556	1573	1494	1361	1471	1537	1518	1474	1531	1528	1470	1361	1450	1561	1533	1591

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62	1530	1515	1505	1437	1373	1422	1473	1429	1450	1468	1448	1410	1317	1412	1496	1512	1530
63	1447	1453	1439	1355	1271	1309	1408	1366	1397	1395	1392	1364	1269	1343	1454	1452	1447
64	1348	1357	1344	1314	1211	1298	1314	1306	1297	1330	1337	1290	1173	1279	1341	1392	1348
65	1321	1285	1262	1222	1216	1209	1227	1264	1251	1247	1236	1248	1196	1221	1265	1315	1321
66	1231	1200	1203	1199	1082	1159	1172	1177	1200	1182	1169	1161	1062	1152	1238	1206	1231
67	1123	1138	1121	1136	1095	1130	1094	1094	1105	1096	1099	1135	1088	1127	1111	1137	1123
68	1084	1072	1077	1083	1007	1033	1017	1030	1032	1053	1011	1038	990	1054	1065	1073	1084
69	966	1014	1011	1006	946	990	971	977	978	1000	963	1008	915	1000	1038	1022	966
70	943	941	954	947	913	934	911	913	885	906	926	935	910	966	976	949	943
71	821	879	898	913	851	869	877	861	838	856	875	880	860	899	917	883	821
72	777	814	852	823	802	814	800	800	752	790	797	821	776	839	842	806	777
73	677	743	774	780	743	754	753	713	688	706	746	758	724	773	775	742	677
74	603	660	716	707	680	681	700	667	625	692	676	698	653	725	719	655	603
75	532	582	655	651	615	620	635	583	545	615	634	623	603	633	658	565	532
76	481	510	588	577	547	566	567	514	500	528	572	556	527	576	584	513	481
77	484	435	530	511	490	507	507	440	461	468	504	492	458	497	520	474	484
78	473	435	459	457	436	448	442	410	431	425	460	430	405	443	449	438	473
79	480	402	380	397	388	396	376	374	407	368	404	375	358	387	368	403	480
80	453	409	322	344	342	340	321	354	367	339	344	327	318	337	320	396	453
81	385	370	272	306	307	286	286	310	301	292	280	284	284	290	267	370	385
82	303	308	251	270	280	247	250	243	219	235	224	238	256	253	233	331	303
83	229	241	224	229	237	217	209	171	147	169	187	206	221	215	230	246	229
84	161	182	188	184	183	181	164	125	116	125	150	176	171	180	197	168	161
85	108	123	148	136	130	144	118	105	106	108	111	135	127	135	144	115	108
86	93	91	107	107	94	104	91	95	98	98	92	99	92	96	92	91	93
87	84	80	76	88	72	78	77	87	91	89	78	75	69	76	72	81	84
88	74	71	62	64	55	58	65	78	84	79	66	60	52	57	60	71	74
89	63	61	52	46	42	46	55	67	72	68	55	47	39	43	50	61	63
90	52	50	43	38	35	38	44	50	57	54	45	37	33	35	41	48	52
91	31	28	33	30	30	29	30	14	31	28	33	29	28	28	29	21	31
92	2	2	17	20	21	19	12	1	1	1	15	18	18	17	12	2	2
93	1	1	2	8	9	7	1	1	1	1	1	7	7	6	1	1	1

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94	1	1	1	1	1	1	1	3	2	1	1	1	1	1	1	2	1
95	15	14	1	1	1	1	2	16	20	16	1	1	1	1	1	15	15
96	23	15	3	1	1	1	4	15	22	14	3	1	1	1	3	15	23
97	20	12	5	1	1	1	5	12	19	12	5	1	1	1	5	12	20
98	17	9	5	1	1	1	5	9	16	9	4	1	1	1	5	9	17
99	13	8	4	1	1	3	3	6	12	7	3	2	1	3	4	7	13
100	10	6	3	6	4	7	3	5	9	5	3	5	5	7	4	6	10
101	7	5	3	11	10	12	4	4	6	4	4	10	10	12	4	5	7
102	5	4	4	16	16	17	4	2	3	2	4	15	17	17	4	4	5
103	3	2	5	23	23	23	5	2	2	2	5	21	23	21	5	2	3
104	2	2	6	24	30	23	6	2	2	2	6	21	28	22	6	2	2
105	2	2	7	24	31	23	8	2	2	2	7	21	28	22	7	2	2
106	2	2	8	24	30	23	9	3	2	3	8	21	28	21	7	2	2
107	2	2	9	23	30	22	9	3	2	3	9	20	28	21	8	2	2
108	2	2	10	24	30	22	10	3	2	3	9	20	28	21	9	3	2
109	2	3	10	25	29	22	10	3	2	3	9	20	29	24	9	3	2
110	2	3	11	24	28	22	10	3	2	3	9	20	30	23	9	3	2
111	2	3	11	24	28	22	10	4	3	3	9	20	32	22	9	3	2
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113	2	3	11	30	54	29	10	4	3	3	9	31	53	36	10	3	2
114	3	3	11	39	57	37	10	4	3	3	10	35	55	40	10	3	3
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117	3	3	15	43	55	40	12	3	3	3	11	37	48	42	15	3	3
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124	5	4	17	32	36	29	15	4	4	4	11	27	34	29	15	4	5
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126	5	5	16	29	32	26	13	4	5	4	10	24	32	27	13	5	5
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157	7	6	7	6	6	6	6	6	6	6	6	6	6	5	7	7	7

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158	7	6	7	6	6	6	6	6	6	6	6	6	6	5	7	7	7
159	7	6	7	6	6	6	6	6	6	6	6	6	6	5	7	7	7
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179	9	8	8	6	7	8	7	8	8	8	8	8	8	7	8	8	9
180	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

2.2 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
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Test date	2016-05-27	Test Ambient:	25.2 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	CNL5-100(5700K)		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
STD160203	120.0	60	0.8053	95.78	0.9912	10.85
NB-H2	277.0	60	0.3789	94.73	0.9025	13.16

Sphere-Spectroradiometer Method :

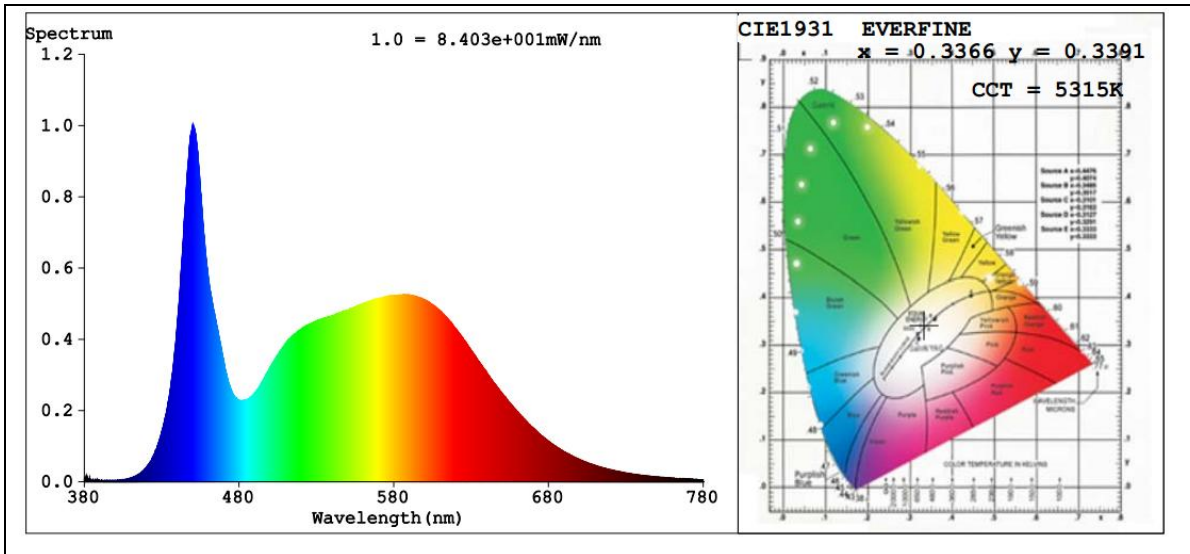
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	85.6
R9	22
CCT (K)	5315
Chromaticity (x, y)	x=0.3366 y=0.3391
Chromaticity (u', v')	u'=0.2105 v'=0.4772
Duv	-0.0029
Total Initial Lumen Output(lm)	11204
Initial Lumen Efficacy(lm/w)	116.98

Special Color Rendering Indices			
R1	85	R9	22
R2	90	R10	76
R3	92	R11	86
R4	86	R12	65
R5	86	R13	87
R6	85	R14	96
R7	88	R15	82
R8	72	--	--

Sphere-Spectroradiometer Method for 277V:

Parameter	Result
Test Voltage (V)	277.0
Frequency (Hz)	60
Total Initial Lumen Output(lm)	11028
Initial Lumen Efficacy(lm/w)	116.42

Spectral Power Distribution & Chromaticity Diagram



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3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2015-07-01	2016-06-30
ST-R-331	Spectral analysis system HAAS-2000	2015-07-01	2016-06-30
D204	Standard Lamp	2015-07-01	2016-06-30
PF2010	Power Meter for Integrating Sphere	2015-07-01	2016-06-30
EE-09	Goniophotometer system	2015-07-01	2016-06-30
D908S	Standard Lamp	2015-07-01	2016-06-30
PF210	Power Meter for Goniophotometer	2015-07-01	2016-06-30
ST-R-181A	Temperature Tester	2015-07-01	2016-06-30
Uncertainty: Photometric Measurement (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

******* END OF DATASHEET PACKAGE *******